

REMARKS/ARGUMENTS

Claims 1-80 are pending in the present application.

This Amendment is in response to the Office Action mailed November 12, 2003. In the Office Action, the Examiner rejected claims 1-5, 21-25, 41-45 and 61-65 under 35 U.S.C. §102(e); and claims 6-7, 9-17, 26-27, 29-37, 46-47, 49-57, 66-67 and 69-77 under 35 U.S.C. §103(a). Applicants have amended claims 17-19, 37-39, 57-59 and 77-79. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Specification

1. The Office Action requested that Applicants add a "Summary of the Invention" description to the application. However, Applicants would like to kindly point out that both the M.P.E.P. and 37 C.F.R. §1.73 do not require the presence of a "Summary of the Invention" in a patent application. They merely indicate where in the application the "Summary of the Invention" should be placed if Applicants were to elect to include one.

In particular, 37 C.F.R. §1.73 only states that "[a] brief summary of the invention ... should precede the detailed description." 37 CFR §1.73 does not state "must" or "shall." Accordingly, Applicants have elected not to include a "Summary of the Invention" as this is within the discretion of Applicants.

Rejection Under 35 U.S.C. § 112

1. In the Office Action, the Examiner rejected claims 17-20, 27-40, 57-60, 77-80 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In response, Applicants have amended claims 17-19, 37-39, 57-59 and 77-79 to clarify the claim language.

Therefore, Applicants respectfully request the rejection under 35 U.S.C. §112 be withdrawn.

Rejection Under 35 U.S.C. § 102

1. In the Office Action, the Examiner rejected claims 1-5, 21-25, 41-45 and 61-65 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,357,004 issued to Davis

("Davis-004"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Davis-004 discloses a system and method for ensuring integrity throughout post-processing. A system includes a host processor and a manipulation processing element (Davis-004, col. 3, lines 58-63). The manipulation processing element comprises a device contained within a package (Davis-004, col. 4, lines 23-25). The device supports post-processing operations and cryptographic operations such as encryption and/or decryption, creation of a digital signature, performance of a hash function, and generation of keys (Davis-004, col. 4, lines 29-37). None of these elements corresponds to an isolated execution mode.

Davis-004 does not disclose, either expressly or inherently, (1) a secure environment for an isolated execution mode, (2) a processor operating in one of a normal execution mode and the isolated execution mode, and (3) a communication storage to exchange security information with the processor in the isolated execution mode in a remote attestation.

To anticipate a claim, the reference must teach every element of a the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989).

The Examiner states that Davis-004 discloses one processor having one of a normal execution mode and an isolated execution mode (Office Action, page 4, paragraph 9).

Applicants respectfully disagree.

First, Davis-004 discloses two separate processors: a host processor and a manipulation processing element, not a processor having two modes of operations. The memory unit accessible to the manipulation processing element is not accessible to the host processor (Davis-004, col. 4, lines 59-67).

Second, the manipulating processing element may perform post-processing and cryptographic operations, but not operations in an isolated execution mode. As supported in the Specification, the isolated execution mode includes configuration for isolated execution, definition of an isolated area, definition of isolated instructions, generation of isolated access bus

cycles, and generation of isolated mode interrupts (See Specification, page 8, lines 22-25); page 9, lines 1-2). Claims should be interpreted consistently with the specification, which provides content for the proper construction of the claims because it explains the nature of the patentee's invention. See Renishaw, 158 F.3d 1250. Here, the meaning of the isolated execution mode must be interpreted consistently with the Specification.

Third, Davis-004 does not disclose communication storage to allow a device to exchange security information with the processor in the isolated execution mode in a remote attestation. Davis-004 merely discloses that for authentication, digital signature may be accompanied by a digital certificate chain (Davis-004, col. 3, lines 14-16). There is no communication storage. The manipulation processing element merely performs post-processing operations on information after the information has been digitally signed (Davis-004, col. 3, lines 38-40). There is no remote attestation.

Therefore, Applicants believe that independent claims 1, 21, 41, 61 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102(e) be withdrawn.

Rejection Under 35 U.S.C. § 103

1. In the Office Action, the Examiner rejected claims 6-7, 9-17, 26-27, 29-37, 46-47, 49-57, 66-67 and 69-77 under 35 U.S.C. §103(a) as being unpatentable over Davis-004 in view of U.S. Patent No. 4,319,233 issued to Ermolovich ("Ermolovich ") and rejected claims 8, 28, 48 and 68 under 35 U.S.C. §103(a) as being unpatentable over Davis-004 in view of Ermolovich and further in view of U.S. Patent No 5,844,986 issued to Davis ("Davis-986") Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of obviousness.

Davis-004 discloses a system and method for ensuring integrity throughout post-processing as discussed above.

Ermolovich discloses a communications device for data processing system. A device status is built and inserted into a packet as a status longword before inserting a command packet into a termination queue (Ermolovich, coo. 85, lines 37-41). The device status contains the status of a communication device after the communication device processes a command packet

(Ermolovich, col. 13, lines 37-43). A command interpreter transfers contents of a command field to a command register in an external device (Ermolovich, col. 12, lines 2-6). The communication device may directly write to or read from buffers in the data block and command block (Ermolovich, col. 7, lines 54-58).

Davis-986 discloses a electronic system and method for controlling access through user authentication. In a field BIOS upgrade, a software manufacturer (the BIOS vendor) sends the user a diskette containing a new BIOS code (Davis-986, col. 3, lines 38-40). An authentication is performed to ensure that the revision date is appropriate (Davis-986, col. 4, lines 7-15).

Davis-004, Ermolovich and Davis-986, taken alone or in any combination, does not disclose, suggest, or render obvious (1) a secure environment for an isolated execution mode, (2) a processor operating in one of a normal execution mode and the isolated execution mode, and (3) a communication storage to exchange security information with the processor in the isolated execution mode in a remote attestation. There is no motivation to combine Davis-004, Ermolovich and Davis-981 because none of them addresses the problem of isolated execution. There is no teaching or suggestion that a processing having normal and isolated execution modes is present. Davis-004, read as a whole, does not suggest the desirability of a configuration storage in a communication storage corresponding to an address space for an isolated execution mode. Ermolovich merely discloses status word in a command packet for a communication device, not a configuration storage for an isolated execution mode. Davis-986 merely discloses a BIOS upgrade, not a configuration of a device to exchange security information with a processor having a normal and isolated execution modes.

The Examiner failed to establish a prima facie case of obviousness and failed to show there is teaching, suggestion or motivation to combine the references. "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the

claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985).

In the present invention, the cited references do not expressly or implicitly suggest a configuration storage in a communication storage corresponding to an address space for an isolated execution mode. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Davis-004, Ermolovich and Davis-986 is an obvious application of attestation using isolated execution mode.

Therefore, Applicants believe that independent claims 1, 21, 41, 61 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §112, 35 U.S.C. §102(e), and 35 U.S.C. §103(a) be withdrawn.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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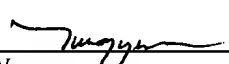
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